

20 Centrifuge Extractors

ASTM: D 2172

Used for quantitative determinations of bitumen content in hot-mixed asphalt paving mixtures and paving samples for specification, acceptance, service evaluation, control and research.

Several units are available with analog or digital controls, open or explosion proof motor design and in 1500g or 3000g sample sizes.

115v and 220v, 50hz or 60hz models are available in each configuration. Comes with 10 filter rings.



MODEL	CAPACITY	CONTROL	MOTOR TYPE	ELECTRICAL	SHIPPING WEIGHT
LA-2405	1500g	Analog	Open	115v/60hz	75lb (33kg)
LA-2405-01	1500g	Analog	Open	220v/50hz	75lb (33kg)
LA-2405-D	1500g	Digital	Open	115v/60hz	75lb (33kg)
LA-2400	1500g	Analog	Explosion Proof	115v/60hz	75lb (33kg)
LA-2400-01	1500g	Analog	Explosion Proof	220v/50hz	75lb (33kg)
LA-2400-D	1500g	Digital	Explosion Proof	115v/60hz	75lb (33kg)
LA-2415	3000g	Analog	Open	115v/60hz	80lb (36kg)
LA-2415-01	3000g	Analog	Open	220v/50hz	80lb (36kg)
LA-2415-D	3000g	Digital	Open	115v/60hz	80lb (36kg)
LA-2410	3000g	Analog	Explosion Proof	115v/60hz	80lb (36kg)
LA-2410-01	3000g	Analog	Explosion Proof	220v/50hz	80lb (36kg)
LA-2410-D	3000g	Digital	Explosion Proof	115v/60hz	80lb (36kg)

ACCESSORIES:

LA-2400-02	Centrifuge clamp with screws.
LA-2400-03	1500g aluminum bowl
LA-2400-04	1500g bowl cover
LA-2401	O'ring, 1500g bowl cover
LA-2410-02	3000g aluminum bowl
LA-2410-04	3000g bowl cover
LA-2410-05	Bowl cover nut
LA-2410-06	O'ring, 3000g bowl cover
LA-2410-08	Brake assembly with band
LA-2410-09	Brake band only
LA-2420	1500g Filter rings (100 pk)
LA-2440	3000g Filter rings (100 pk)

Filterless Centrifuges

ASTM: D 1856, D 2172

AASHTO: T 164, T 170

This centrifuge does not require a filter, therefore assuring the highest accuracy. Pouring the solvent from the top funnel into the rotating aluminum beaker carries out the test. Due to the induced centrifugal force, the liquid spreads on the wall and moves upwards, leaving mineral particles in the beaker while the liquid is discharged through the outlet tubing.

Two models are available for up to 100g or 400g maximum filler extraction. Maximum speed is 11,000 rpm. Both units include applicable sieves.

MODEL	DESCRIPTION	CAPACITY	SHIPPING WEIGHT
LA-2421	Filterless centrifuge, 100g, 110v/60hz/1ph	100g	121lb (55kg)
LA-2421-01	Filterless centrifuge, 100g, 220v/50hz/1ph	100g	121lb (55kg)
LA-2422	Filterless centrifuge, 400g, 220v/60hz/3ph	400g	220lb (100g)
LA-2422-01	Filterless centrifuge, 400g, 380v/50hz/3ph	400g	220lb (100kg)



ACCESSORIES:

LA-2421-02	Spare aluminum beaker for LA-2421 and LA-2421-01
LA-2422-02	Spare aluminum beaker for LA-2422 and LA-2422-01

For biodegradable solvents, see page 28.



Vacuum Extractors

ASTM: D 2172

AASHTO: T 164

Used for quantitative determination of bitumen content in hot mixed paving mixtures and pavement samples. Unit is stainless steel, 3000g capacity, combination vacuum/storage tank, and 12" (305mm) diameter filtering surface. Unit includes connection hose, 50 filter papers, test procedure, see through extraction gauge, sight tube and vacuum gauge. Order vacuum pump separately.

ACCESSORIES:

LA-2460-01	Replacement O'ring
LA-2460-02	Replacement gauge for LA-2460
LA-2460-03	Replacement glass tubing with 2 O'rings for LA-2460
LA-2460-04	Vacuum plate
LA-2460-05	Stainless steel plate
LA-2460-06	Heavy SS plate
LA-2460-07	Replacement rubber tubing
LA-2460-08	Heavy-wall clear vacuum tubing
LA-2460-09	8" sieve adapter for use with LA-2460, LA-2462



MODEL	DESCRIPTION	SHIPPING WEIGHT
LA-2460	Vacuum extractor with storage tank	84lb (38kg)
LA-2462	Vacuum extractor without storage tank, gauge and sight tube.	60lb (27kg)

Reflux Extractor Sets 1000g & 2000g

ASTM: D 2172

AASHTO: T 164

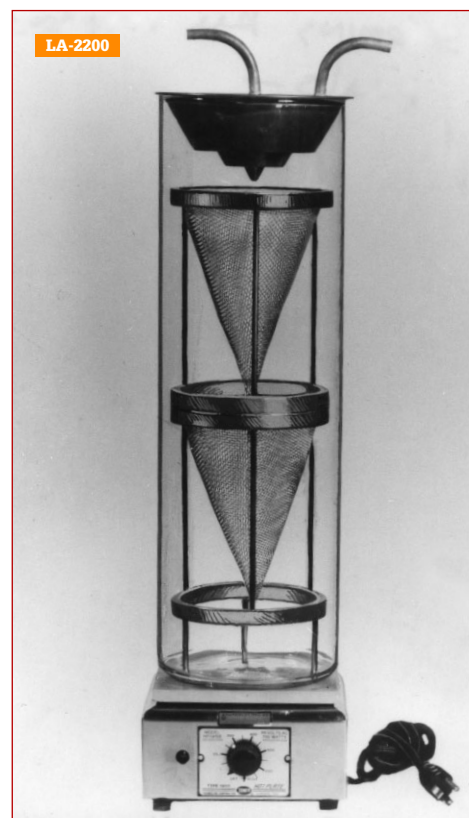
Reflux extractors provide a low cost solution for determination of asphalt content in bituminous paving mixtures.

Sets include; 2 wire screen cones, copper condenser with inlet/outlet water tubes, glass jar, electric hot plate, 100pk filter paper.

MODEL	CAPACITY	DESCRIPTION	SHIPPING WEIGHT
LA-2200	1000g	Reflux extractor set, 115v/50/60hz/1ph	26lb (12kg)
LA-2200-01	1000g	Reflux extractor set, 240v/50/60hz/1ph	26lb (12kg)
LA-2210	2000g	Reflux extractor set, 115v/50/60hz/1ph	26lb (12kg)
LA-2210-01	2000g	Reflux extractor set, 240v/50/60hz/1ph	26lb (12kg)

ACCESSORIES:

LA-2200-02	Wire screen cone, 1000g (2) per Set
LA-2210-02	Wire screen cone, 2000g (2) per Set
LA-2200-03	Copper condenser, 1000g
LA-2210-03	Copper condenser, 2000g
LA-2201	Glass jar, 1000g
LA-2211	Glass jar, 2000g
LA-2200-04	100pk filter paper, 1000g
LA-2210-04	100pk filter paper, 2000g



22 Hot Plates, Economy

Single and double burner hotplates provide an economical heat source for evaporation studies, asphalt binder extractions, distillation, soil analysis, drying aggregates and preheating of laboratory samples.

2-burner plate has 825W burners for a total of 1650W. Maximum temperature for each burner is 900°F (482°C). Single burner plate is 1100W, 1200°F (649°C). Both units come with "Pot-Sensor", double circuit thermostat control that automatically turns power on/off maintaining temperatures to within 5°F. Power signal lights are on each burner. Case is solid chrome plated steel for easy cleanup and corrosion resistance. Comes with 3-prong power cord. 120V models only.

ACCESSORIES:

LA-0462	Stainless steel sample pan
LA-2600	5-qt mixing
LA-2610	Stainless steel spoon
LA-2621	Heat resistant gloves

LA-0870



LA-0870-10



MODEL	DESCRIPTION	DIMENSIONS	SHIPPING WEIGHT
LA-0870	2-burner hot plate, 120v/50/60hz/1ph	20"L x 8.75" W x 4" H	8lb (3.6kg)
LA-0870-10	1-burner hot plate, 120v/50/60hz/1ph	13.50"L x 8.75" W x 4" H	5lb (2.3kg)

Hot Plates, Heavy Duty

Heavy-duty, single burner hot plates accommodate heavier samples while maintaining stable control of temperature.

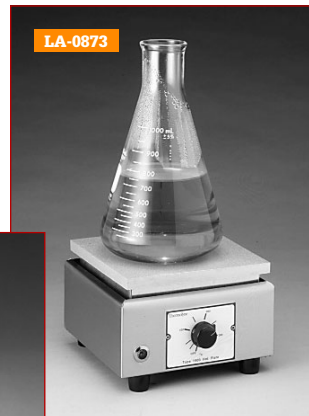
Provide an excellent heat source for evaporation studies, asphalt binder extractions, distillation, soil analysis, drying aggregates and preheating of laboratory samples.

Both the LA-0873 and LA-0874 series feature:

- 700°F (371°C) maximum temperature.
- Thermostatic temperature control for excellent stability
- Embedded heating elements for even transfer of heat
- Aluminum top plate for uniform temperature distribution
- Cycle light the indicates when power is on to element
- Stainless steel cases

The LA-0873 series is approximately 6" x 6" (16cm x 16cm) and is capable of carrying loads of up to 20lb (9.07kg). The LA-0874 series is approximately 12" x 12" (31cm x 31cm) and is capable of carrying loads of up to 40lb (18kg).

LA-0873



LA-0874



MODEL	DESCRIPTION	DIMENSIONS	SHIPPING WEIGHT
LA-0873	1-burner hot plate, 120v/50/60hz/1ph, 750W	7.63"L x 6.63" W x 4.38" H	5lb (2.3kg)
LA-0873-01	1-burner hot plate, 240v/50/60hz/1ph, 750W	7.63"L x 6.63" W x 4.38" H	5lb (2.3kg)
LA-0874	1-burner hot plate, 120v/50/60hz/1ph, 1600W	13"L x 12" W x 6.13" H	21lb (9.5kg)
LA-0874-01	1-burner hot plate, 240v/50/60hz/1ph, 1600W	13"L x 12" W x 6.13" H	21lb (9.5kg)

ACCESSORIES:

LA-0462	Stainless steel sample pan
LA-2600	5-qt mixing bowl
LA-2610	Stainless steel spoon
LA-2621	Heat resistant gloves



Automatic Solvent Reclaimers

Rapidly reclaims expensive solvents from binder extractions utilizing evaporation and water-cooled condensation. 5-gallon unit recovers over 4 gallons of solvent in 2 hours, 15-gallon unit recovers 13 gallons in 4 hours. Capable of reclaiming contaminated, non-flammable solvents, such as Perchloroethylene and Trichloroethylene, Freon TF, Freon TMS and Florinert.

Reclaimers are constructed with no moving parts and with glass lined corrosion protected tanks. Temperature range is 100 °F to 450 °F (38 °C to 232 °C). Units come equipped with input and output water hoses, water-cooled heat exchanger, lid & seal, 6-foot heavy-duty cord, and a 3-wire plug for electrically grounded operation.

MODEL	CAPACITY	DESCRIPTION	SHIPPING WEIGHT
LA-2140	5 gal. (18.9 L)	Solvent reclaimer, 120v.	100lb (45.4 kg)
LA-2140-01	5 gal. (18.9 L)	Solvent reclaimer, 240v.	100lb (45.4 kg)
LA-2140-02	15 gal. (56.8 L)	Solvent reclaimer, 120v.	120lb (54.4 kg)
LA-2140-03	15 gal. (56.8 L)	Solvent reclaimer, 240v.	120lb (54.4 kg)



Vacuum Pumps

ASTM: D 2041, D 2172

AASHTO: T 164, T 209, T 283

Used for a variety laboratory testing protocols, these vacuum pumps offer quiet, dependable, oil sealed operation.

Three models to choose from starting with the portable LA-1925 unit to the two stage, high performance LA-1910 and LA-1915.

MODEL	ULTIMATE VACUUM (MICRONS)	FREE AIR DISPLACEMENT L/M (CFM)	HP	ELECTRICAL REQUIREMENTS	SHIPPING WT.
LA-1925	1	85 (3)	1/3	115v/60hz/1ph	28lb (12.7kg)
LA-1925-01	1	85 (3)	1/3	220v/50hz/1ph	28lb (12.7kg)
LA-1900	0.3	10 (.35)	1/4	115v/60hz/1ph	44lb (19.9kg)
LA-1905	0.3	10 (.35)	1/4	230v/60hz/1ph	44lb (19.9kg)
LA-1910	0.1	79 (2.8)	1/2	115/230v/60hz/1ph	110lb (49.9kg)
LA-1915	0.1	79 (2.8)	1/2	220v/50hz/1ph	110lb (49.9kg)

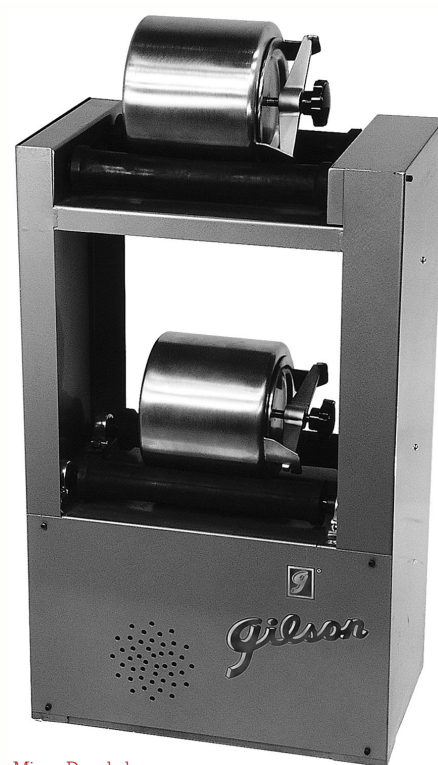


24 Micro Deval Apparatus

The Micro-Deval test measures abrasion resistance and durability of aggregates in the 9.5 to 19mm size range. Meets current Canadian standards; provisional AASHTO standard is under consideration. Aggregate sample is placed in a jar mill container with a 5000g abrasive charge of 9.5mm stainless steel balls and water and is rotated at 100 rpm for two hours. Aggregate quality is determined by percentage loss in gradation results.

Sturdy steel frame. Included: one stainless 5-liter jar with locking cover, abrasive charges and magnet. Powered by a 1/2 hp, 115v/60hz motor through gear transmission and chain drive.

Available separately are required sieve sizes 3/4" (19mm), 5/8" (16mm), .530" (13.2mm), 3/8" (9.5mm), .265" (6.7mm), #4 (4.75mm) and #16 (1.18mm). See pages 7-8 for complete listing of sieves and accessories.



Note: Two-tier Micro-Deval shown

MODEL	DESCRIPTION	SHIPPING WEIGHT
LA-0854	Micro-Deval Apparatus, single tier	100lb (45.4kg)

California Kneading Compactor

ASTM: D 1561, D 2844
AASHTO: T 190, T 247
CALIFORNIA: 101, 301, 304

The California kneading compactor is designed for controlled compaction of soils or bituminous specimens in cylindrical or rectangular shapes. Reproducibility of compaction is accomplished by applying a kneading pressure to the specimen through a tamping foot by means of a controlled dynamic force. The energy required for compaction is developed from a self-contained pressure compensated hydraulic system.

Maximum compaction force is 2500lbs with tamping foot maximum stroke of 10".

Tamping foot has individual adjustments of down stroke rate, up stroke distance, and dwell in the down position.

Table rotates via a hydraulic actuator and is timed to the tamper foot. Table rotation is operator programmable and is infinitely variable from 6 to 72 degree increments for each 260 degrees of table rotation. Feed rate is also operator programmable from .2 to 1.5 inches per pulse.

Unit comes standard with 4" diameter standard California-type mold holder and loading funnel. Order Hveem molds separately.



MODEL	DESCRIPTION	SHIPPING WEIGHT
LA-2103	California kneading compactor, 208/230V/60hz/3ph	1800lb (818kg)
LA-2103-01	California kneading compactor, 230V/60hz/1ph	1800lb (818kg)

ACCESSORIES:

LA-2103-03 Hveem compaction mold, 4" dia.



Slab-Pac™ Linear Kneading Compactor

The Slab-Pac™ is designed to simulate the rolling action of heavy construction equipment used in the field for compaction of asphalt pavement. Compaction is performed with a kneading action that allows the mix to be compacted without fracturing the aggregate. The machine quickly and safely prepares uniformly compacted single or double layer specimens to predetermined thickness and density. Maximum specimen size is 19.7" (50.0cm) long x 10.2" (26.0cm) wide by 3.9" (10.0cm) thick.

Specimens can be used for rutting performance testing in wheel tracking machines and for Superpave simple shear testing. Six standard mold sets are available. Power requirements, 208-240vac/50-60hz/1ph.



MODEL	DESCRIPTION	SHIPPING WEIGHT
LA-2127	Slab-Pac™ Linear Kneading Compactor.	1500lb (682kg)

ACCESSORIES:

LA-2127-01	SHRP-003A simple shear mold set
LA-2127-02	German wheel tracking (Hamburg) mold set
LA-2127-03	German (modified) wheel tracking mold set
LA-2127-05	Georgia wheel tracking mold set
LA-2127-06	300mm x 300mm mold set
LA-2127-04	French wheel tracking mold set
LA-2127-07	1/4" thick spacer plate for French mold

Marshall Hand Compaction Set

ASTM: D 1559

AASHTO: T 245

Hand compaction set includes all necessary equipment for compaction of a 4" diameter bituminous sample and for calibration of automatic compactors.

Compactor pedestal features an adjustable guide that fits the handle of the hammer.

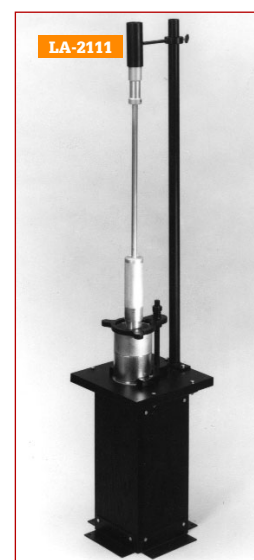
Guide holds axis of the compaction hammer perpendicular to the base of the mold assembly during compaction.

Set includes: pedestal with steel plate, 4" mold, mold holder, hammer, support rod, and adjustable guide.

MODEL	DESCRIPTION	SHIPPING WEIGHT
LA-2111	Hand compaction set	165lb (74.8kg)

ACCESSORIES:

LA-2110	Compaction pedestal with steel plate.
LA-2030	4" diameter compaction mold
LA-2110-15	Mold holder
LA-2115	Compaction hammer
LA-2110-16	Hammer support rod
LA-2110-17	Adjustable guide



26 Automatic Single 4" Marshall Compactor

ASTM: D 1559
AASHTO: T 245

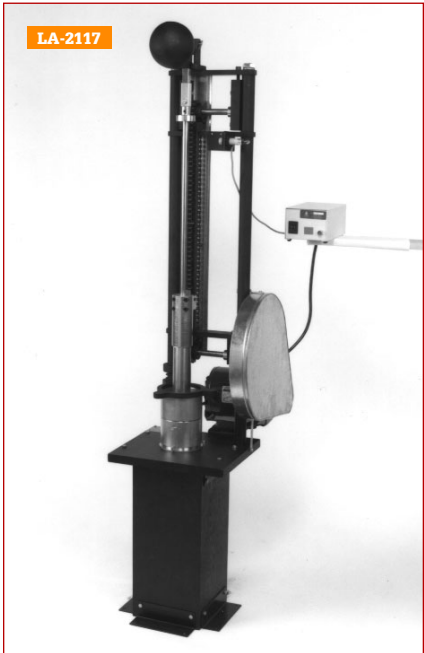
Ease sample preparation with automatic mechanical compactor. Apparatus compacts samples at preset number of hammer blows and shuts off on completion. Automatic unit

includes mechanical compactor, automatic counter, oak compaction pedestal and LA-2030 mold assembly. Additional mold and hammer assemblies are recommended.

MODEL	DESCRIPTION	SHIPPING WEIGHT
LA-2117	Single mechanical compactor, 115v/60hz/15A 1ph	198lb (89.8kg)
LA-2117-1	Single mechanical compactor, 230v/50hz/10A 1ph	198lb (89.8kg)

ACCESSORIES:

LA-2030	4" diameter mold assembly
LA-2117-H	Replacement hammer assembly
LA-2125	Automatic counter, 115v/60hz/1ph
LA-2125-01	Automatic counter, 220v/50/60hz/1ph



Mix Design

Sample Ejector, Universal

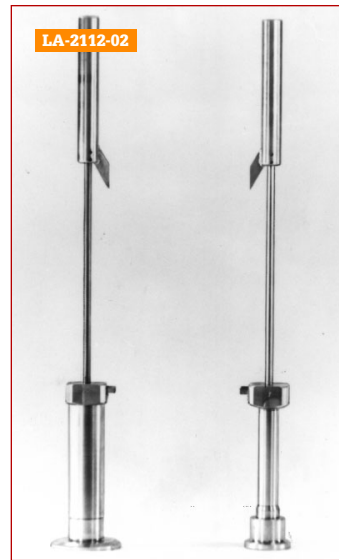
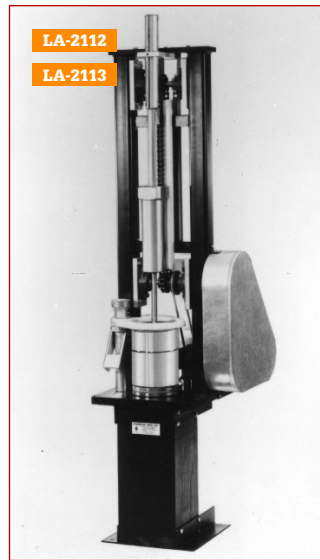
ASTM: D 1559

Used to extract 4" (100mm) and 6" (150mm) diameter asphalt samples from compaction molds.

Durable specimen ejector is lightweight and easily transported. Supplied with dies and mold retainer for 4" specimens.

MODEL	DESCRIPTION	SHIPPING WEIGHT
LA-2060-05	Universal sample ejector.	12lb. (54kg)
LA-2060-10	Sample ejector, 4" (100mm) only.	12lb. (54kg)
LA-2060-15	Sample ejector, 6" (150mm) only.	12lb. (54kg)





Heavy Duty Automatic Single Marshall Compactor With Rotating Base, 4" And 6".

ASTM: D 1559
AASHTO: T 245

For preparing 4" and 6" diameter compacted specimens, model has beveled foot on hammer and mold that rotates throughout compaction, giving a modified kneading

action. Fully automatic operation compacts samples at preset number of blows and shuts off on completion. Unit includes compactor, counter, pedestal, and mold assembly.

MODEL	DESCRIPTION	SHIPPING WEIGHT
LA-2112	4" diameter rotating base single mechanical compactor, 115v/60hz/1ph.	400lb (181.4kg)
LA-2112-01	4" diameter rotating base single mechanical compactor, 230v/50/60hz/1ph.	400lb (181.4kg)
LA-2114	6" diameter rotating base single mechanical compactor, 115v/60hz/1ph.	400lb (181.4kg)
LA-2114-01	6" diameter rotating base single mechanical compactor, 230v/50/60hz/1ph.	400lb (181.4kg)

ACCESSORIES:

LA-2112-02	4" replacement hammer with tapered foot for LA-2112, LA-2112-01
LA-2112-03	4" replacement hammer with flatfoot for LA-2112, LA-2112-01
LA-2114-02	6" replacement hammer with tapered foot for LA-2114, LA-2114-01
LA-2114-03	6" replacement hammer with flat foot for LA-2114, LA-2114-01
LA-2029	4" compaction mold for LA-2112, LA-2112-01
LA-2035	6" compaction mold for LA-2114, LA-2114-01
LA-2125	Automatic counter, 115v/60hz/1ph
LA-2125-01	Automatic counter, 220v/50/60hz/1ph

Heavy Duty Automatic Single Marshall Compactor With Non-Rotating Base, 4" And 6".

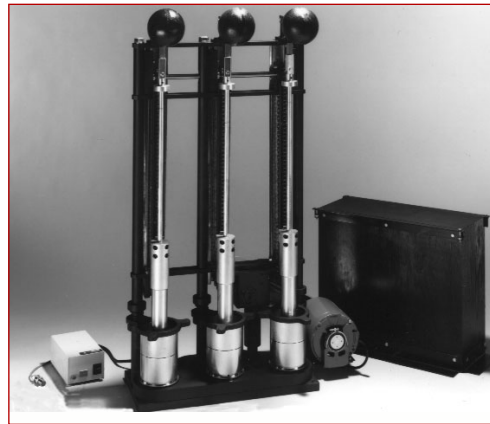
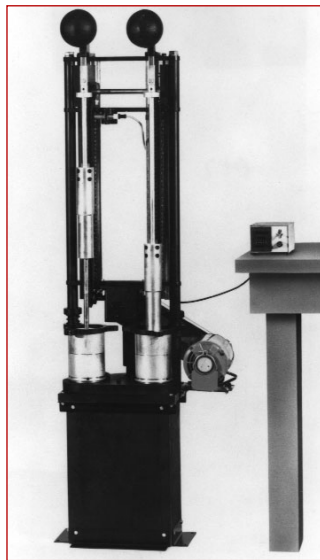
ASTM: D 1559
AASHTO: T 245

For preparing 4" and 6" diameter compacted specimens. Same as LA-2112 and LA-2114 except base does not rotate and unit comes standard with a flat hammer.

MODEL	DESCRIPTION	SHIPPING WEIGHT
LA-2113	4" diameter non-rotating base single mechanical compactor, 115v/60hz/1ph.	400lb (181.4kg)
LA-2113-01	4" diameter non-rotating base single mechanical compactor, 230v/50/60hz/1ph.	400lb (181.4kg)
LA-2116	6" diameter non-rotating base single mechanical compactor, 115v/60hz/1ph.	400lb (181.4kg)
LA-2116-01	6" diameter non-rotating base single mechanical compactor, 230v/50/60hz/1ph.	400lb (181.4kg)

ACCESSORIES:

LA-2112-02	4" replacement hammer with tapered foot for LA-2113, LA-2113-01
LA-2112-03	4" replacement hammer with flatfoot for LA-2113, LA-2113-01
LA-2114-02	6" replacement hammer with tapered foot for LA-2116, LA-2116-01
LA-2114-03	6" replacement hammer with flat foot for LA-2116, LA-2116-01
LA-2030	4" compaction mold for LA-2113, LA-2113-01
LA-2035	6" compaction mold for LA-2116, LA-2116-01
LA-2125	Automatic counter, 115v/60hz/1ph
LA-2125-01	Automatic counter, 220v/50/60hz/1ph



Marshall Automatic Double and Triple Mechanical Compactors with Rotating Base for 4-inch Specimens

Models compact two or three specimens simultaneously at a preset number of hammer blows and shut off automatically on completion. Units include mechanical

compactor, automatic counter, oak pedestal and mold assembly. Dimensions, Double compactor: 10 x 21 x 66 inches; Triple Compactor: 16 x 22 x 66 inches.

MODEL	DESCRIPTION	SHIPPING WEIGHT
LA-2119	Marshall Compactor, Double Rotating, 115/60/1	265lb (120.2kg)
LA-2119-01	Marshall Compactor, Double Rotating, 230/50/1	265lb (120.2kg)
LA-2119-10	Marshall Compactor, Triple Rotating, 115/60/1	400lb (181.4kg)
LA-2119-11	Marshall Compactor, Triple Rotating, 230/50/1	400lb (181.4kg)

ACCESSORIES:

LA-2029	4-in compaction mold for double and triple compactors
LA-2125	Automatic counter, 115v/60hz/1ph
LA-2125-01	Automatic counter, 220v/50/60hz/1ph
LA-2120	Hammer Assy, Flat, Dbl & Trpl Compactors
LA-2121	Hammer Assy, Tapered, Dbl & Trpl Compactors

Heater/Circulator

Clamp-on heater/circulator for tanks and baths has 1000 watt capacity. Provides accurate proportional control up to 194°F (94°C) with $\pm .2^\circ\text{F}$ ($\pm .1^\circ$) stability. Element has immersions from 3 – 7 inches (76 – 178 mm). Pumping speeds of 7 or 15 liters/min (1.65 to 3.55 gpm). Mounting clamp fits tank wall thickness up to 1.19 in (30.2mm). Analog dial knob temperature selector. Stainless steel contact points. Included: On/Off switch, heating indicator light, and grommet-mounted thermometer (-20 to 150°C). Load: 8.6 amps at 115v.



MODEL	DESCRIPTION
LA-1307	Tank heater/circulator, 115v
LA-1307-01	Tank heater/circulator, 230v

Biodegradable Solvent

Used for centrifugal and vacuum asphalt extraction tests. This solvent is accepted by state DOTs as a biodegradable, ozone-friendly alternative to trichloroethylene and other chlorinated solvents. Contains no chlorinated or petroleum solvents. Powersolv requires no water rinsing. Excel Clean HD and Hisol Plus will not clump when rinsed with water.

Not for reflux extraction or other heated solvent methods.

MODEL	DESCRIPTION	FLASH POINT	SIZE/QTY.	WEIGHT
LA-2190-05	Powersolv Biodegegradable Solvent	115°F (46°C)	5 gal (18.9 liter)	40 lb (18.2 kg)
LA-2190-55	Powersolv Biodegegradable Solvent	115°F (46°C)	55 gal (208 liter)	440 lb (200kg)
LA-2191-05	EXCEL CLEAN HD Biodegegradable Solvent	125°F (52°C)	5 gal (18.9 liter)	40 lb (18.2 kg)
LA-2191-55	EXCEL CLEAN HD Biodegegradable Solvent	125°F (52°C)	55 gal (208 liter)	440 lb (200kg)
LA-2192-05	Hisol Plus Biodegegradable Solvent	>140°F (60°C)	5 gal (18.9 liter)	40 lb (18.2 kg)
LA-2192-55	Hisol Plus Biodegegradable Solvent	>140°F (60°C)	55 gal (208 liter)	440 lb (200kg)



Circulating And Non-Circulating Water Baths

ASTM: D 1559

Thermostatically controlled, fully insulated water bath with magnetic circulator heats up to twelve 4" diameter Marshall specimens at a time. Shelf supports molds and allows free circulation of 2" of water above and below molds. Magnetic circulator assures water temperature is constant throughout tank. Temperature controls provide range from ambient to 150°F (65.5°C), accurate to within $\pm 1^\circ\text{F}$ ($\pm 1^\circ\text{C}$).

Tank I.D., 11 $\frac{1}{2}$ " x 19 $\frac{1}{2}$ " x 8" deep. Steel exterior with stainless steel tank. Holds 7.8 gallons, (29.4L). Non-circulating model is exactly the same except it does not include magnetic circulator.

MODEL	DESCRIPTION	SHIPPING WEIGHT
LA-2136	Water bath with circulator, 120v/60hz	47lb (21.4kg)
LA-2136-01	Water bath with circulator, 220v/50-60hz	47lb (21.4kg)
LA-2134	Water bath, non-circulating, 120v/60hz	44lb (20kg)
LA-2134-01	Water bath, non-circulating, 220v/50-60hz	44lb (20kg)



Economy Water Bath

ASTM: D 1559

Low cost water bath for heating specimens holds eight standard 4" (100mm) diameter molds. Supporting shelf above the bottom allows water circulation around specimens.

Automatic thermostatic control with a range of 150° to 500°F (65° to 160°C).

Tank I.D., 11 $\frac{1}{2}$ " x 19 $\frac{1}{2}$ " x 8" deep.

MODEL	DESCRIPTION	SHIPPING WEIGHT
LA-2133	Water bath, economy, 120v/60hz	28lb (12.7kg)
LA-2133-01	Water bath with circulator, 220v/50hz	28lb (12.7kg)



Superpave Sample Oven

Designed specifically for the larger, heavier samples produced when utilizing SUPERPAVE technology. Shelves hold in excess of 200lbs each. Heating elements and fan are built into top of the oven eliminating damage due to sample spillage.

Digital P.I.D. control maintains $\pm 3.0^\circ\text{C}$ @ 150°C (302°F), maximum temperature 280°C (536°F). Available in 8 and 12 cu. ft. models. 220v-240v.

MODEL	CAPACITY	DESCRIPTION	SHIPPING WEIGHT
LA-0896	8 ft ³	Forced air SUPERPAVE sample oven, 220v-240v/12.5A.	240lb (109kg)
LA-0896-01	12 ft ³	Forced air SUPERPAVE sample oven, 220v-240v/25A.	280lb (127kg)





Forney offers two gyrotory compactors, built to SHRP and FHWA specifications. The gyrotory compactor produces asphalt specimens that best predict long-term pavement performance. The compactor uses a fixed angle, constant consolidation pressure and a set rate of gyration to produce consistent specimens, time after time. Output of specimen height is automatically directed to printer or computer during the consolidation cycle or data can be stored and downloaded after compaction is complete. Troxler GyroPave™ software allows tabulation or graphing of data and use of Excel.

The LA-2104 and LA-2104-01 compactors can be programmed to operate automatically or the user can manually control each compaction step. Specimens can be programmed to compact at a specific angle, a specific load or to a desired specimen height. Top of the mold is held in a fixed position while the angle is induced by offsetting the base of the mold. Rotating the offset base creates the gyrotory motion with superb angle control and higher efficiency.

The gyrotory compactor comes calibrated and ready for use. Pressure, angle, and rate of gyrations are set to SHRP guidelines.

MODEL	DESCRIPTION
LA-2104	Gyrotory compactor model 115 volt
LA-2104-01	Gyrotory compactor model 230 volt
LA-2104-02	Gyrotory compactor model 115 volt

ACCESSORIES:

LA-2104-03	Printer for both models
LA-2104-04	Parallel printer cable (both models)
LA-2104-05	Gyropave software (both models)
LA-2104-06	Height standard block (both models)
LA-2104-07	Paper discs, 150 mm
LA-2104-08	Serial cable, 8' (both models)
LA-2104-09	Serial cable, 16' (both models)
LA-2104-10	User manual for LA-2104, 2104-01
LA-2104-11	User manual for LA-2104-02
LA-2104-12	User manual for Gyropave software
LA-2104-13	Extractor for LA-2104, 2104-01

50/60Hz, 1 phase, 10 amp. Can be set to compact to number of gyrations or compact to specified height.

Angle of gyration: 1.25 degrees. Number of gyrations: 0 to 300. Consolidation Pressure: 600 KPa. Uses 100mm or 150mm specimens; specimen height: 50mm minimum, 227 mm loose max. Supplied with same standard package as LA-2104 including caster package but excluding mold.

LA-2104

Electrical requirement: 115 VAC, 60Hz, 10.1 A (optional LA-2104-01 230V/50Hz). Dimensions: 86 x 33.5 x 24.5 in. (217 x 85 x 62.23 cm). With the scaler, the width is 34.5 in. With the ram cover removed the height is 74 in (188 cm), allowing it to fit through standard doorways.

Angle of Gyration adjusts from 0.5° to 2.0° ±0.02°. Consolidation pressure adjusts from 200 to 1000 KPa (29 to 145 PSI) ±5% load accuracy for gyration 1 to 5 at 600 KPa and ±3.0% load accuracy after first 5 gyrations at 600 KPa.

Mold diameter is 150 mm (6 inch nominal) inner diameter. Runs 1 to 999 gyrations per test at a gyration rate of 30 ±0.5 rpm. Supplied with printer, printer cable, extruder for specimen removal from mold, height standard block, serial cable and specimen paper disks, one 150 mm mold and Gyropave software.

LA-2104-02

This compact and portable unit with fixed angle and load is 34 x 38 x 57.5 in. (86 x 97 x 146cm) and weighs only 585 lb (265 Kg). This unit, built for small labs and trailers, operates quietly. The mold can be moved directly from the consolidation chamber to the extruder without lifting. Electrical requirement: 115VAC,

